



2016 CIS EIS Outreach Public Meetings Information Station Posters



Welcome to the Missile Defense Agency (MDA) Public Meeting



We invite the community to learn more about the potential Continental United States Interceptor Site (CIS) and the Environmental Impact Statement.

- Review project and potential actions
- Ask questions and interact with subject-matter experts
- Provide valuable input
- Submit written comments or provide oral comments to a court recorder at the public meeting
- For more information visit www.mda.mil

Written comments may be submitted to:

Email: MDA.CIS.EIS@BV.COM

Mail: Black & Veatch Special Projects Corp
ATTN: MDA CIS EIS
6800 W. 115th Street, Suite 2200
Overland Park, KS 66211-2420

All comments must be postmarked by July 18, 2016.

Personal information will be kept confidential unless release is required by law.



Cooperating Agencies



Fort Drum
Fort Drum, NY



Fort Custer Training Center
Michigan Army National Guard
Augusta, MI



Camp Ravenna Joint Military Training Center
Ohio Army National Guard
Portage and Trumbull Counties, OH



Center for Security Forces Detachment
Kittery Survival, Evasion, Resistance,
and Escape Facility (SERE East)
Redington Township, ME



Thank You for Attending the MDA Public Meeting

Your participation is vital to our success

More information can be found at:

www.mda.mil

Have more to say...?

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About Ground Based Interceptor (GBI)



Ground Based Interceptor

- 55 feet long, 4.2 feet in diameter, 22-27 tons
- Solid propellant
- No warhead (hit-to-kill)



Transporting GBI to Silo



Silo Interface Vault Transport



Silo Transport



Missile Transport



GBI Placement into Silo



Emplacement of Silo



Locations Analyzed in Draft Environmental Impact Statement (EIS)*



- **Fort Custer Training Center**
Michigan Army National Guard
Augusta, Michigan
- **Camp Ravenna Joint Military Training Center**
Ohio Army National Guard
Portage and Trumbull Counties, Ohio
- **Fort Drum**
Fort Drum, New York

****No preferred site has been selected***



SERE East Designation

SERE East Designated as Alternative Considered but Not Carried Forward



In January 2016, the Missile Defense Agency designated the Center for Security Forces Detachment Kittery Survival, Evasion, Resistance, and Escape Facility (SERE East) in Redington Township, Maine as an Alternative Considered but Not Carried Forward due to irreversible environmental impacts, significant constructability concerns, and extensive costs associated with developing infrastructure in a remote area.

A press release regarding this designation was issued January 16, 2016.



Why is MDA Preparing an Environmental Impact Statement (EIS)?

FY13 National Defense Authorization Act Section 227

(a) EVALUATION —Not later than December 31, 2013, the Secretary of Defense shall conduct a study to evaluate at least three possible additional locations in the United States, selected by the Director of the Missile Defense Agency, that would be best suited for future deployment of an interceptor capable of protecting the homeland against threats from nations such as North Korea and Iran. At least two of such locations shall be on the East Coast of the United States.

(b) ENVIRONMENTAL IMPACT STATEMENT REQUIRED —Except as provided by subsection (c), the Secretary shall prepare an environmental impact statement in accordance with the National Environmental Policy Act of 1969 (42 U.S.C. et seq.) for the locations the Secretary evaluates under subsection (a).

Pursuant to Congressional direction to evaluate possible locations and complete an Environmental Impact Statement for a potential additional missile defense site in the continental United States, the Missile Defense Agency completed an evaluation of 457 sites. The EIS analyzes three potential locations.

The Department of Defense has not made a decision to deploy or construct a CIS.

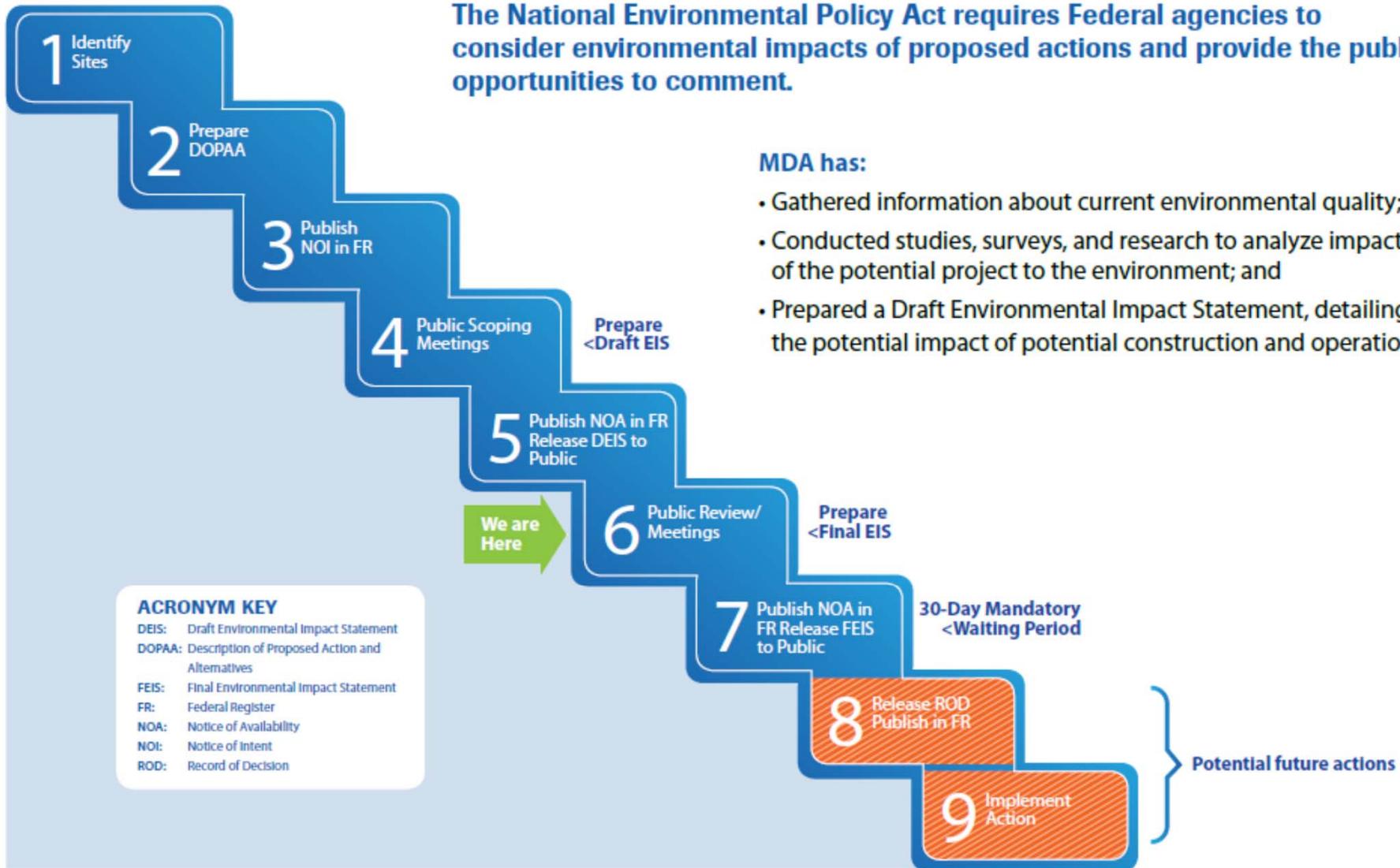


Environmental Impact Statement Steps

The National Environmental Policy Act requires Federal agencies to consider environmental impacts of proposed actions and provide the public opportunities to comment.

MDA has:

- Gathered information about current environmental quality;
- Conducted studies, surveys, and research to analyze impacts of the potential project to the environment; and
- Prepared a Draft Environmental Impact Statement, detailing the potential impact of potential construction and operations.



ACRONYM KEY

- DEIS: Draft Environmental Impact Statement
- DOPAA: Description of Proposed Action and Alternatives
- FEIS: Final Environmental Impact Statement
- FR: Federal Register
- NOA: Notice of Availability
- NOI: Notice of Intent
- ROD: Record of Decision



Resources Analyzed in the CIS Draft Environmental Impact Statement (EIS)

Transportation

Air Quality

Construction
Operational Emissions



Health & Safety

Cumulative Impacts



Geology and Soils

Water Resources

Surface Water
Groundwater Aquifers



Cultural Resources

Noise



Socioeconomics



Biological Resources

Wildlife Habitat
Wetlands
Threatened and Endangered Species



Airspace Management



Utilities

Change in Land Use

Recreation
Visual



Hazardous Materials & Waste

Environmental Justice



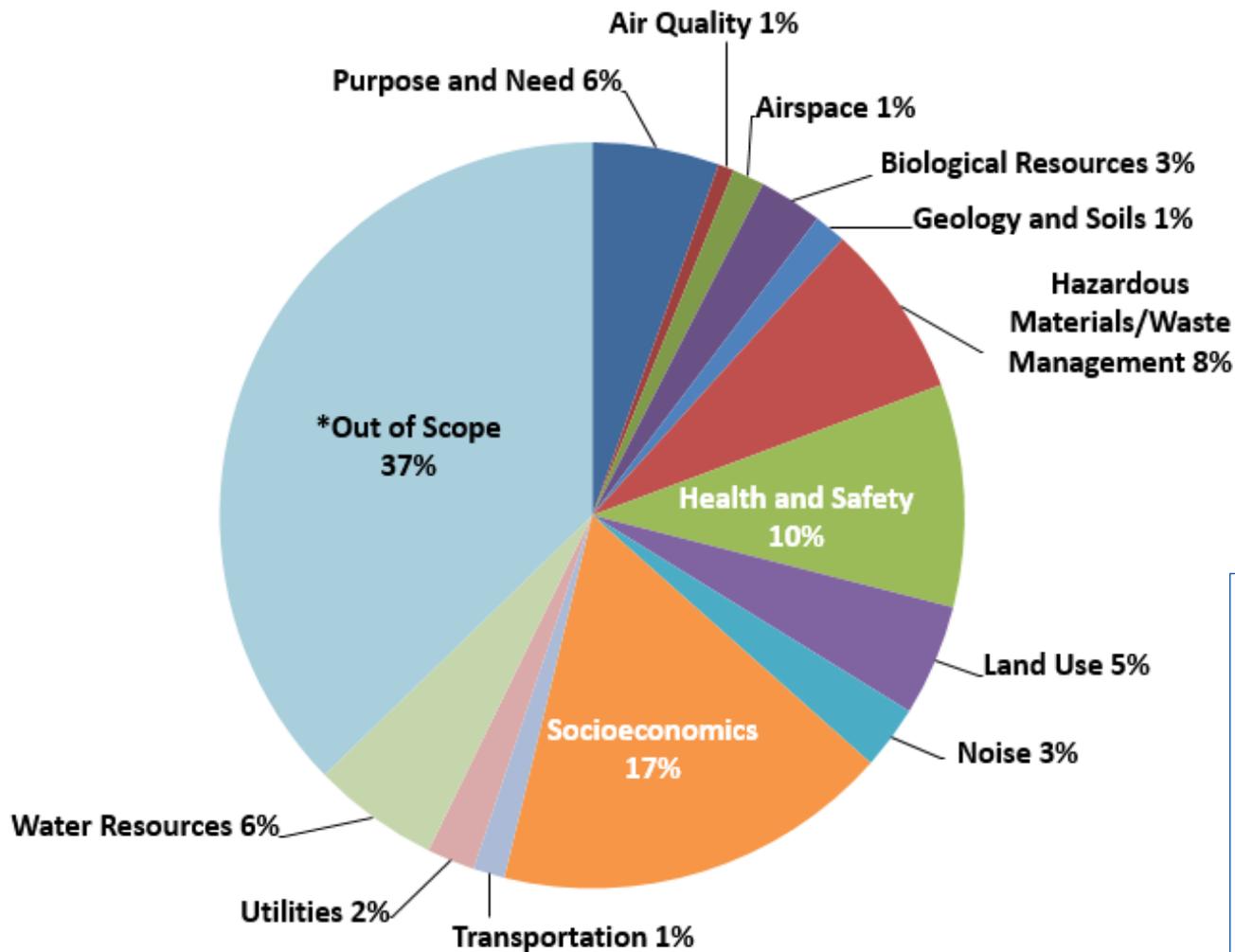
Photo Credit: Butterfly, Joe Schilling; Bat, Adam Mann



Camp Ravenna Joint Military Training Center



Camp Ravenna Public Scoping Comments



***Out of Scope** refers to comments received during the public scoping process that were not considered in the Environmental Impact Statement because they are outside the National Environmental Policy Act (NEPA) process.

Examples of these comments include:

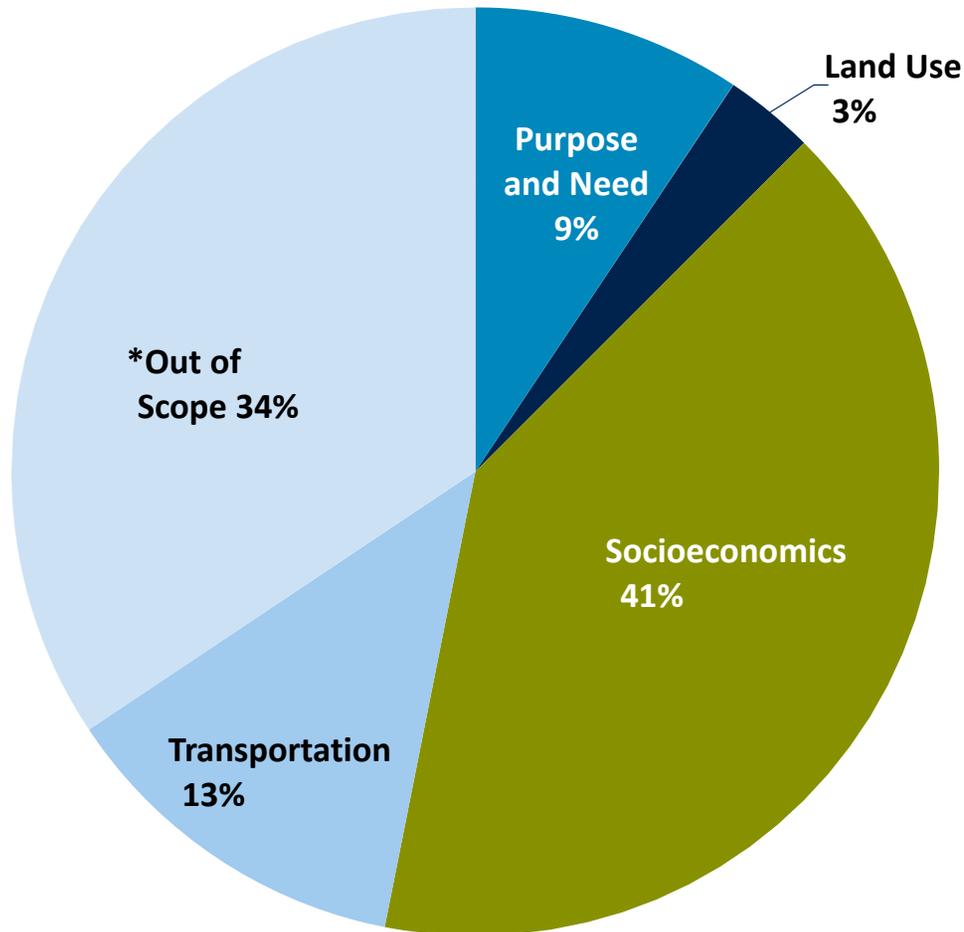
- Impacts of interceptor launch
- System performance
- Fiscal responsibility



Fort Drum Training Range



Fort Drum Public Scoping Comments



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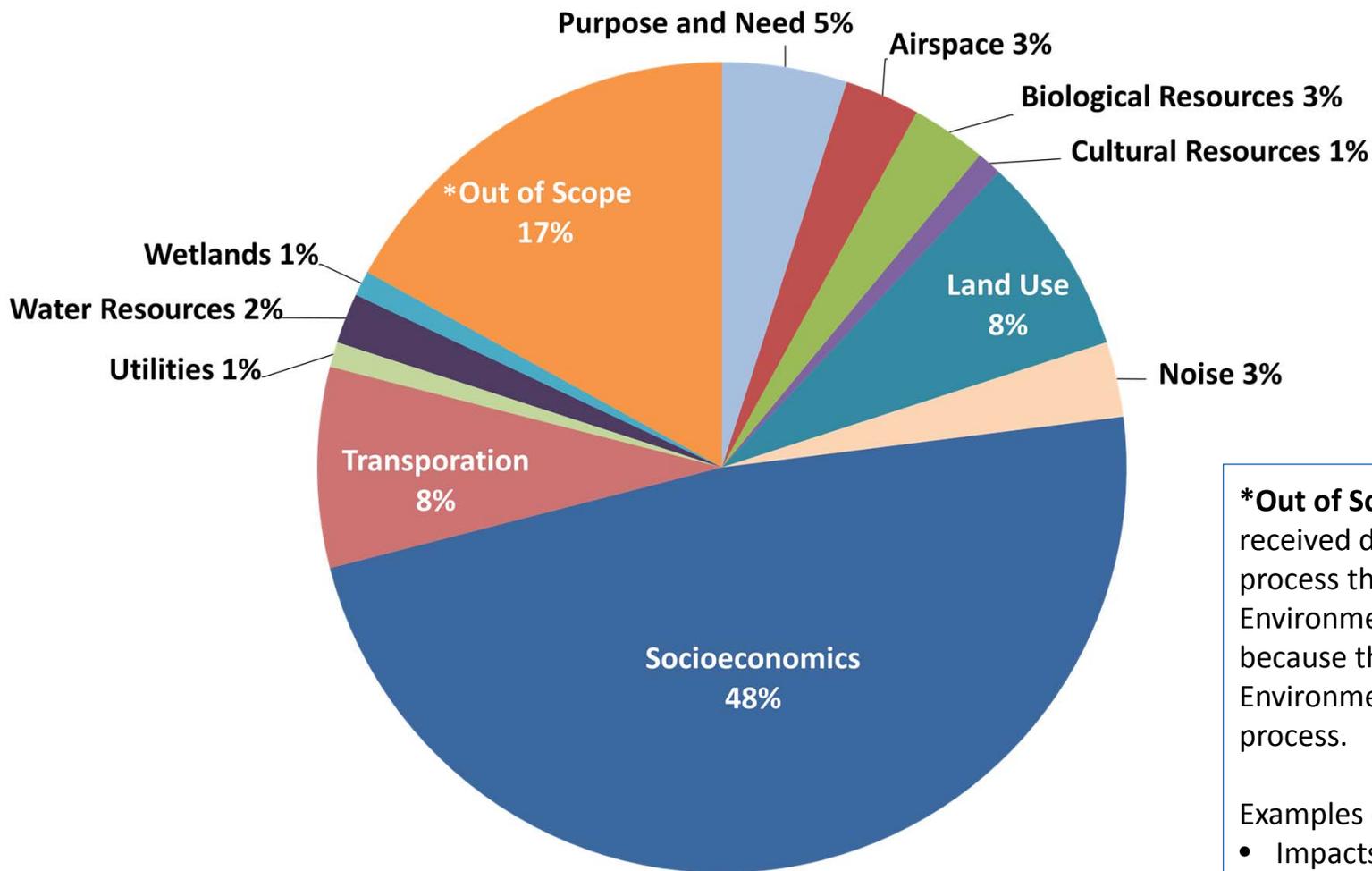
- Impacts of interceptor launch
- System performance
- Fiscal responsibility



Fort Custer Training Center



Fort Custer Public Scoping Comments



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Examples of these comments include:

- Impacts of interceptor launch
- System performance
- Fiscal responsibility



CIS Deployment Schedules

FY16 National Defense Authorization Act

Congress included a requirement to develop a plan to expedite the potential deployment of a CIS by at least 2 years; therefore, two construction schedules were evaluated in the Environmental Impact Statement (EIS):

- **Baseline Schedule – 5 years**
- **Expedited Schedule – 3 years**

Additional and/or intensified impacts from an expedited schedule may occur to: biological resources, noise, transportation, and visual resources.



CIS Draft Environmental Impact Statement (EIS) Comparative Summary

Potential Environmental Impacts from CIS Construction

Resource Studied	Fort Custer 1	Fort Custer 2	Camp Ravenna	Fort Drum
Air Quality	Minor	Minor	Minor	Minor
Airspace	Negligible	Negligible	Negligible	Negligible
Biological Resources				
- Baseline Schedule	Minor	Minor	Minor	Minor
- Expedited Schedule	Moderate	Moderate	Major (Significant)	Major (Significant)
Cultural Resources	No Impact	No Impact	No Impact	Adverse (Moderate/Major)
Environmental Justice	Negligible	Negligible	Negligible	Negligible
Geology & Soils				
- Baseline Schedule	Minor	Minor	Moderate	Moderate
- Expedited Schedule	Moderate	Moderate	Moderate	Moderate
Hazardous Materials/ Hazardous Waste	Negligible	Negligible	Moderate	Negligible
Health & Safety	Minor	Minor	Minor	Minor
Land Use	Minor	Minor	Minor	Minor
Noise				
- Baseline Schedule	Minor	Minor	Minor/Moderate	Minor/Moderate
- Expedited Schedule	Minor/Moderate	Minor/Moderate	Minor/Moderate	Minor/Moderate
Socioeconomics	Moderate/ Largely Positive	Moderate/ Largely Positive	Major/ Largely Positive	Moderate/ Largely Positive
Transportation	Major	Minor	Minor	Moderate/Major
Utilities	Negligible	Negligible	Negligible	Negligible/Minor
Water Resources	Minor	Minor	Major (Significant) [5 stream miles]	Major (Significant) [6 stream miles]
Wetlands	Major (Significant) [20 acres]	Major (Significant) [78 acres]	Major (Significant) [21 acres]	Major (Significant) [86 acres]
Visual				
- Baseline Schedule	Minor/Moderate	Minor/Moderate	Minor/Moderate	Moderate
- Expedited Schedule	Moderate	Moderate	Moderate	Moderate



CIS Draft Environmental Impact Statement (EIS) Comparative Summary

Potential Environmental Impacts from CIS Operation

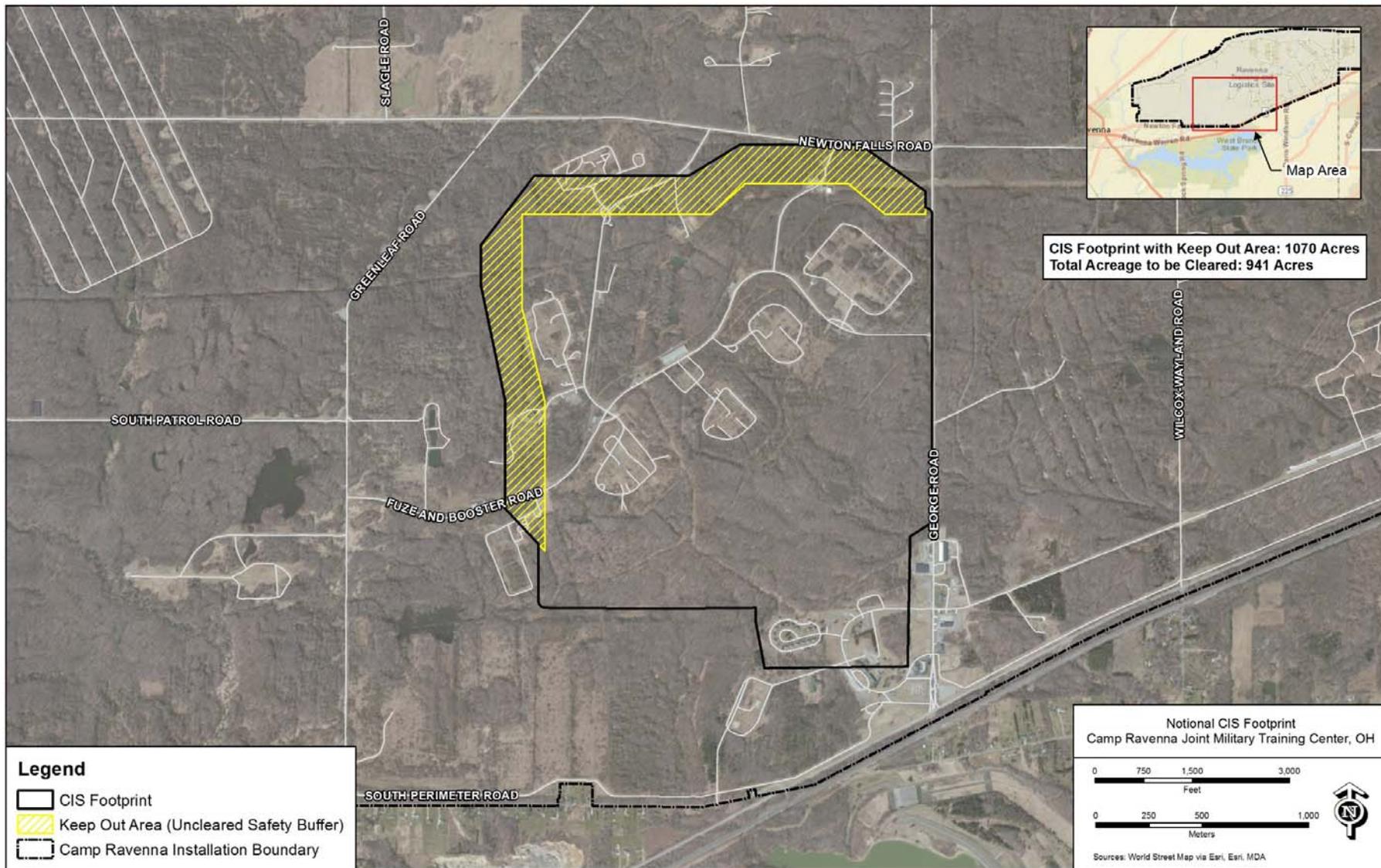
Resource Studied	Fort Custer 1	Fort Custer 2	Camp Ravenna	Fort Drum
Air Quality	Minor	Minor	Minor	Minor
Airspace	Negligible/Minor	Negligible/Minor	Negligible/Minor	Negligible/Minor
Biological Resources	Minor	Minor	Minor	Minor
Cultural Resources	No Impact	No Impact	No Impact	No Impact
Environmental Justice	Negligible	Negligible	Negligible	Negligible
Geology & Soils	Negligible	Negligible	Negligible	Negligible
Hazardous Materials/ Hazardous Waste	Negligible	Negligible	Negligible	Negligible
Health & Safety	Minor	Minor	Minor	Minor
Land Use	Minor	Minor	Minor	Minor
Noise	Negligible	Negligible	Negligible	Negligible
Socioeconomics	Moderate/ Largely Positive	Moderate/ Largely Positive	Major/ Largely Positive	Moderate/ Largely Positive
Transportation	Major	Minor	Minor	Moderate/Major
Utilities	Negligible	Negligible	Negligible	Negligible
Water Resources	Minor	Minor	Minor	Minor
Wetlands	Negligible	Negligible	Negligible	Negligible
Visual	Negligible/Minor	Negligible/Minor	Negligible/Minor	Minor/Moderate



Camp Ravenna Joint Military Training Center



Camp Ravenna Potential CIS Footprint

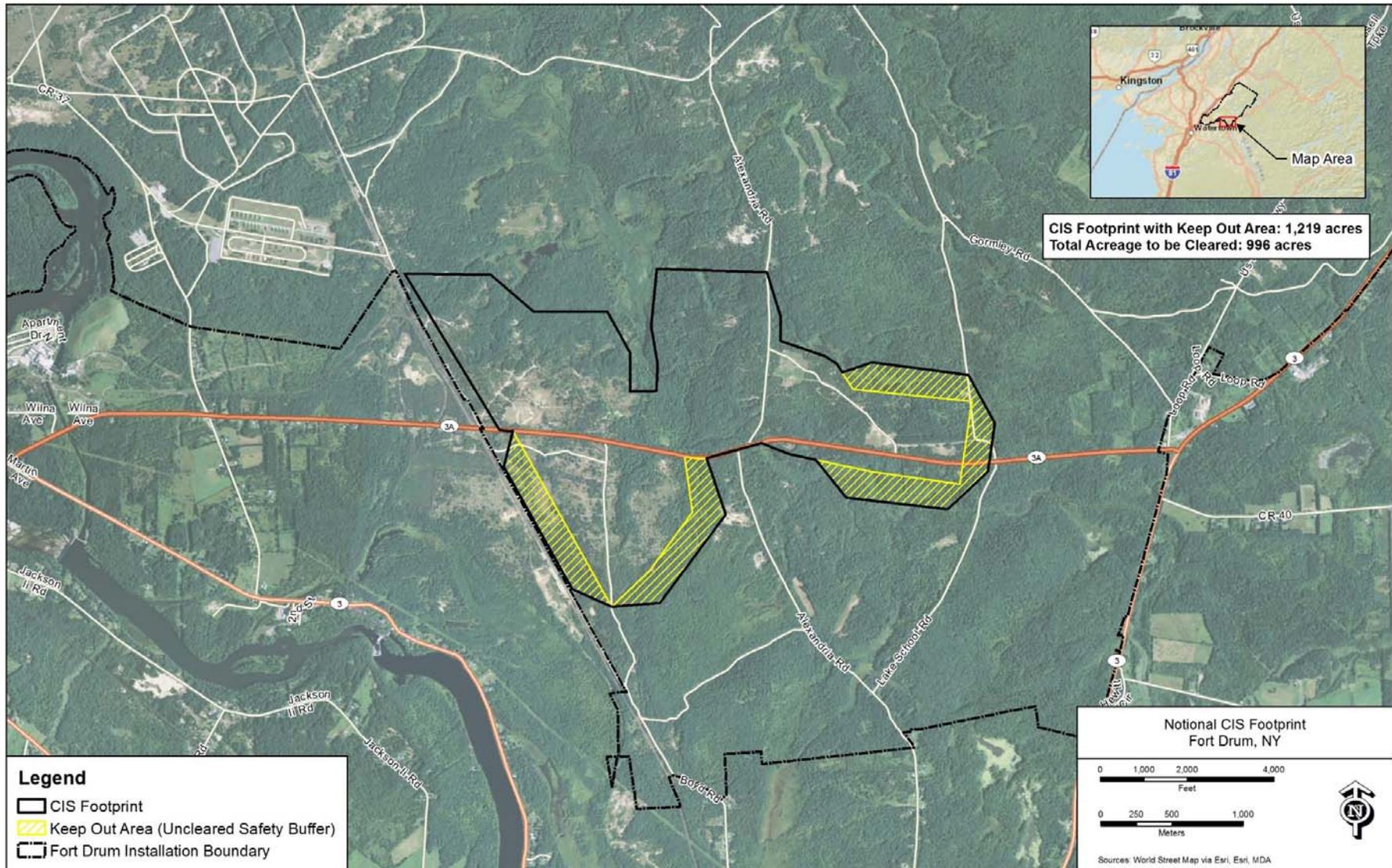




Fort Drum Training Range



Fort Drum Potential CIS Footprint

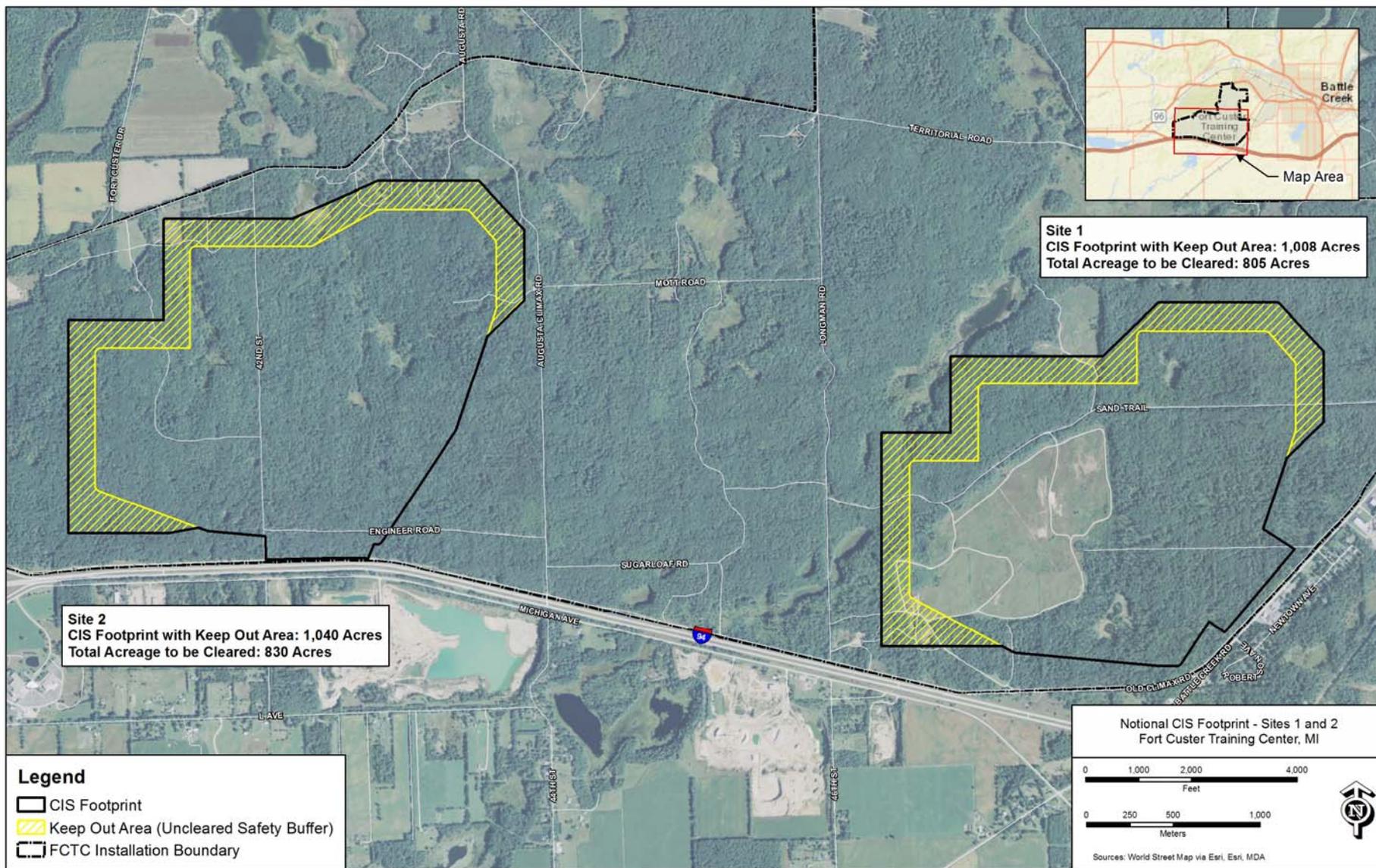




Fort Custer Training Center



Fort Custer Potential CIS Footprint





Camp Ravenna Joint Military Training Center



Camp Ravenna Biological Resources



Site layout adjusted to avoid wetland containing bald eagle nest



Northern long-eared bat known to be present within vicinity of CIS footprint

Impact on Biological Resources

- 1,070 acre CIS footprint, 941 acres of clearing and grading
- Habitat loss/conversion in adjacent areas
- Displacement of wildlife and interruption of movement
- Disturbance from night time lighting and noise

Impact on Threatened/Endangered Species

- Loss of roosting trees and foraging habitat (391 acres of forest) – northern long-eared bat
- Loss of suitable habitat - Indiana bat, northern long-eared bat, Mitchell's satyr butterfly, eastern massasauga rattlesnake, and monkshood
- Baseline Construction Schedule (5 yr) – minor impact if all U.S. Fish & Wildlife Service guidelines followed
- Expedited Schedule (3 yr) – major (significant) impact; clearing habitat during roosting season (Apr – Sep), noise, and lighting

Mitigation Options

- Tree clearing – October through April
- Minimize night work



Camp Ravenna Wetlands

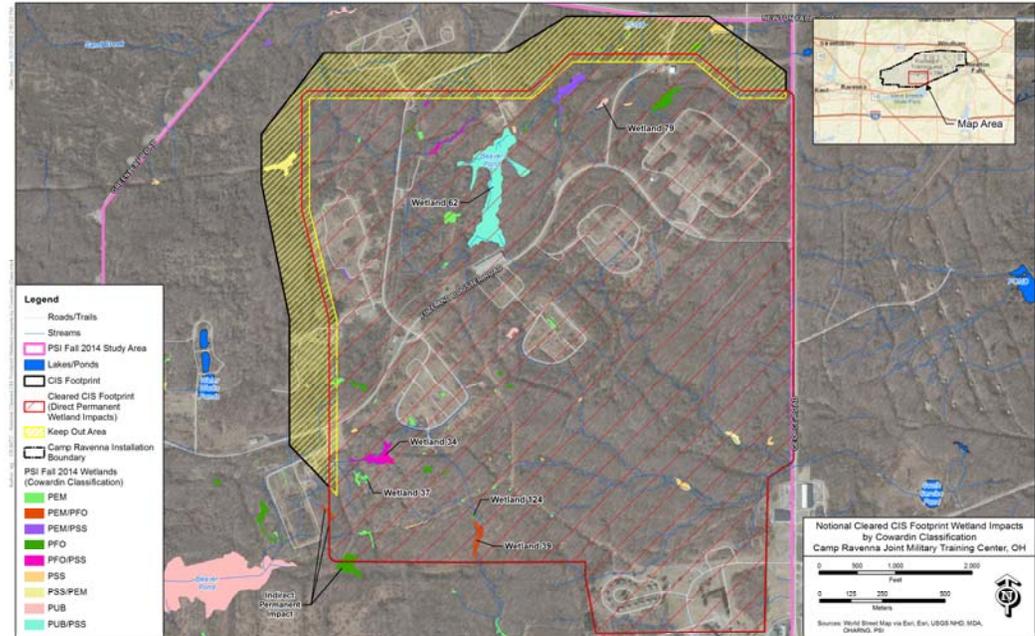
Impact on Resource

- Permanent direct impact: 20 acres
- Permanent indirect impact: Approx. 1 acre
- Potential temporary indirect impact

Ohio Rapid Assessment Method (ORAM) Category	Approx. Permanent Direct Impact	Approx. Permanent Indirect Impact	Habitat Type	Approx. Permanent Direct Impact	Approx. Permanent Indirect Impact
1	0.5 acres	0 acres	Forested	4 acres	0.9 acres
2	5.5 acres	0.1 acres	Scrub-Shrub	7 acres	0 acres
Modified 2	2 acres	0.9 acres	Emergent	3 acres	0.1 acres
3	12 acres	0 acres	Shallow Water	6 acres	0 acres
Total	20 acres	1 acre	Total	20 acres	1 acre

Mitigation Options

- In-Lieu Fee Program
- Wetland Mitigation Site Development (wetland creation, restoration, enhancement, preservation)
- Work with U.S. Army Corps of Engineers and Ohio Environmental Protection Agency for appropriate permits and mitigation





Camp Ravenna Water Resources

Significant impact to approximately 5.2 miles of unnamed streams from CIS construction



Impact on Resource

- Fill, relocation and/or underground enclosure during site preparation
- Flows artificially diverted and reduced
- Adverse impact on aquatic flora and fauna
- Permanent/temporary indirect impacts to downstream areas

Mitigation Options

- Stream mitigation: restoration or re-routing
- Stream enhancement within same watershed



Fort Drum Training Range



Fort Drum Biological Resources



Northern long-eared bat known to be present within vicinity of the CIS footprint

Indiana bat known to roost within FTD, but not in CIS footprint

Impact on Biological Resources

- 1,219 acre CIS footprint; 996 acres of clearing and grading
- Habitat loss/conversion in adjacent areas
- Displacement of wildlife and interruption of movement
- Disturbance from night time lighting and noise

Impact on Threatened/Endangered Species

- Loss of roosting trees and foraging habitat (671 acres of forest) for northern long-eared bat and Indiana bat
- Baseline Construction Schedule (5 yr) – minor impact, if all U.S. Fish & Wildlife Service guidelines followed
- Expedited Schedule (3 yr) – major (significant) impact; clearing habitat during roosting season (Apr – Sep), noise, and lighting

Mitigation Options

- Tree clearing – October through April
- Minimize night work



Fort Drum Wetlands

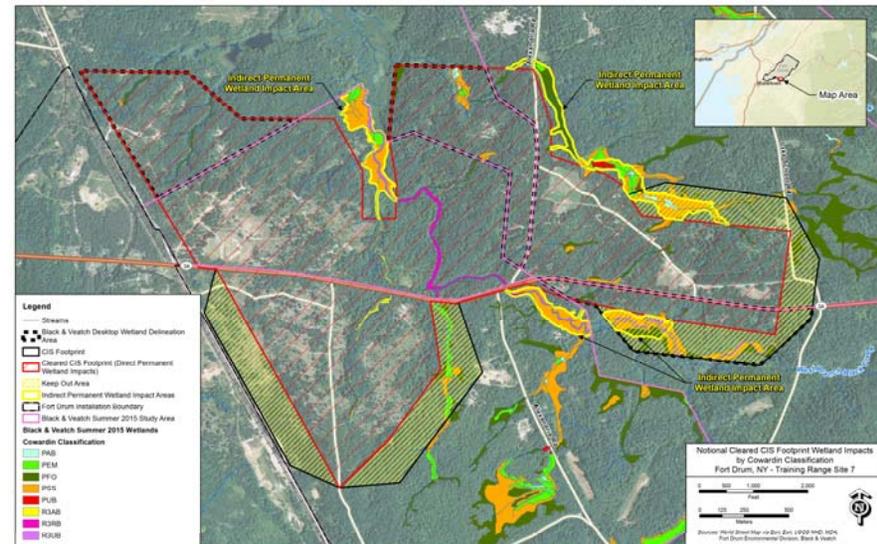
Impact on Resource

- Permanent direct impact: 26 acres
- Permanent indirect impact: 60 acres
- Potential temporary indirect impact

Habitat Type	Approx. Permanent Direct Impact	Approx. Permanent Indirect Impact
Forested	11 acres	12 acres
Scrub-Shrub	7 acres	34 acres
Emergent	0.3 acres	6 acres
Shallow Water	0.7 acres	2 acres
Riverine	7 acres	6 acres
Total	26 acres	60 acres

Mitigation Options

- In-Lieu Fee Program
- Wetland Mitigation Site Development (wetland creation, restoration, enhancement, preservation)
- Work with U.S. Army Corps of Engineers for appropriate permits and mitigation





Fort Drum Water Resources

***Significant impact to approximately 6 miles of named and unnamed streams from CIS construction
(West Branch Black Creek and tributaries)***



Impact on Resource

- Fill, relocation and/or underground enclosure during site preparation
- Flows artificially diverted and reduced
- Adverse impact on aquatic flora and fauna
- Permanent/temporary indirect impacts to downstream areas

Mitigation Options

- Stream mitigation (restoration or enhancement of streams within same watershed)
- In-lieu fee program



Fort Custer Training Center



Fort Custer Biological Resources



No threatened or endangered species currently present at Fort Custer

Suitable habitat for several species potentially present within the vicinity of the CIS footprint

Impact on Biological Resources

- **Site 1:** 1,008 acre CIS footprint; 805 acres of clearing and grading (575 acres of forest)
- **Site 2:** 1,040 acre CIS footprint; 830 acres of clearing and grading (830 acres of forest)
- Habitat loss/conversion in adjacent areas
- Displacement of wildlife and interruption of movement
- Disturbance from night time lighting and noise

Impact on Threatened/Endangered Species

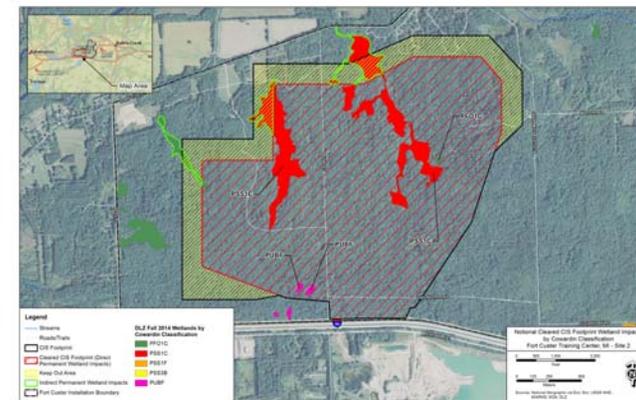
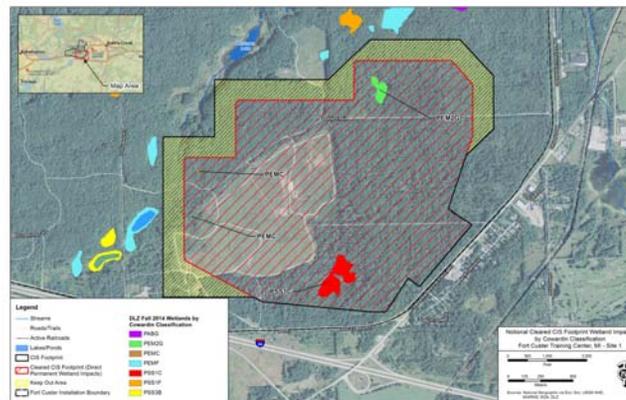
- Loss of suitable habitat - Indiana and Northern long-eared bats, Mitchell's satyr butterfly, copper belly watersnake, and the eastern massasauga rattlesnake
- Baseline Construction Schedule (5 yr) – minor impact, if all U.S. Fish & Wildlife Service guidelines followed
- Expedited Schedule (3 yr) – moderate impact; clearing habitat during roosting season (Apr – Sep), noise, and lighting



Fort Custer Wetlands

Impact on Resource

- Permanent direct impact:
 - **Site 1** – 20 acres
 - **Site 2** – 78 acres
- Permanent indirect impact:
 - **Site 1** – Reduction in groundwater hydrology (amount and flow) in Whittman Lake Fen wetlands
 - **Site 2** – Increased erosion and sedimentation due to surface water flow



Mitigation Options

- In-Lieu Fee Program
- Wetland Mitigation Site Development
- Mitigation banking credit purchase
- Will work with U.S. Army Corps of Engineers and Michigan EPA for appropriate permits and mitigation

Site 1

Habitat Type	Approx. Permanent Direct Impact
Forested	0 acres
Scrub-Shrub	16 acres
Emergent	4 acres
Shallow Water	0 acres
Total	20 acres

Site 2

Habitat Type	Approx. Permanent Direct Impact
Forested	3 acres
Scrub-Shrub	73 acres
Emergent	0 acres
Shallow Water	2 acres
Total	78 acres



Ground Based Interceptor Health & Safety

Potential Impacts

- General construction site hazards
- Transport of Ground Based Interceptor

Mitigation Options

- Ordnance awareness training
- Protective boundary around CIS footprint
- Transport of all site components in coordination with Departments of Transportation
- Increase emergency services
- Establish keep out areas

Key Safety Features

- **No flight testing** would take place at the CIS
- **Solid propellant boosters**
- **No nuclear warhead** used
- **Fully contained** within silo
- **Safety systems** to prevent accidental launch



Camp Ravenna Joint Military Training Center



Camp Ravenna Hazardous Materials & Waste

19 Areas of Concern/Munitions Response Sites and 2 facility-wide Areas of Concern for groundwater and sewers exist onsite from past operations.

Existing Installation Restoration Program (IRP) in conjunction with U.S. Army Corps of Engineers and Ohio Environmental Protection Agency

Prior to construction, Ohio Army National Guard (OHARNG) would complete soil remediation. If encountered during construction, contaminated groundwater would be characterized, treated and/or disposed of.

Impact on Resource

Construction & Operation

Potential for accidental release of hazardous materials, including fuel and explosive components

Mitigation Options

Construction & Operation

- Use of standard best management practices (e.g., Hazard Communication Programs)
- No mitigation measures proposed



Fort Drum Training Range



Fort Drum Transportation

Impact on Resource

- **NY 3A would be closed**
 - Traffic would be rerouted along NY 3 through Carthage
 - Existing routes could accommodate increased traffic, heavy traffic expected during peak hours
 - Travel times would be increased
 - Travel delay expected in Carthage during peak hours



Route NY 3A to be closed

Mitigation Options

- Signal modifications (phasing/timing) could be implemented to enhance traffic flow at State Street and N. School Street in Carthage
- Additional turn lane could be added to lessen potential peak hour traffic delays in Carthage



Camp Ravenna Joint Military Training Center



Camp Ravenna Socioeconomics

Construction

- 400 – 600 workers onsite for up to 5 years
- Approximately \$900K/year in potential sale tax revenue in Portage and Trumbull Counties (combined)
- Total value added in region: >\$224M/yr
- Indirect jobs created: Approx. 2,351

Operation

- 650 – 850 workers onsite full-time
- Approximately \$1.35M/year sales tax revenue in Portage and Trumbull Counties (combined)
- Total value added in region: >\$27M/year
- Indirect jobs created: Approx. 340



Impacts are largely positive

No mitigation proposed



Fort Drum Training Range



Fort Drum Socioeconomics

Construction

- 400 – 600 workers onsite for up to 5 years
- Approximately \$1.1M/year in potential sales tax revenue
- Total value added in region: >\$190M/year
- Indirect jobs created: Approx. 1,836

Operation

- 650 – 850 workers onsite full time
- Approximately \$1.65M/year sales tax revenue
- Total value added in region: >\$27M/year
- Indirect jobs created: Approx. 340



Impacts are largely positive

No mitigation proposed



Fort Drum Cultural Resources

Prehistoric and historic archaeological sites have been identified within the CIS footprint. Some eligible for listing the National Register of Historic Places; others would require further investigations to determine eligibility

Impact on Resource

Archaeological sites would be permanently altered or destroyed having the potential to adversely affect cultural resources under Section 106 of the National Historic Preservation Act

Mitigation Options

Data recovery, monitoring, educational outreach required in partnership with New York State Historic Preservation Office and Tribes



Fort Custer Training Center



Fort Custer Socioeconomics

Construction (Sites 1 and 2)

- 400 – 600 workers onsite for up to 5 years
- Approximately \$925K/year in potential sales tax revenue in Kalamazoo and Calhoun Counties (combined)
- Total value added in region: >\$193M/yr
- Indirect jobs created: Approx. 2,008

Operation (Sites 1 and 2)

- 650 – 850 workers onsite full-time
- Approximately \$1.4M/year sales tax revenue in Kalamazoo and Calhoun Counties (combined)
- Total value added in region: >\$29M/year
- Indirect jobs created: Approx. 416



*Impacts are largely positive for both sites
No mitigation proposed*